

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPELLANT: Wiese ART UNIT: 2173
SERIAL NO.: 10/044,583 EXAMINER: K. Vu
FILED: November 9, 2001 ATTORNEY DOCKET NO:60,365-005
FOR: Real Estate Value Map Computer System

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

APPEAL BRIEF

Subsequent to the Notice of Appeal filed February 28, 2007, Appellant now submits his Appeal Brief.

REAL PARTY IN INTEREST

The real party in interest Steven Paul Wiese is the inventor and owner of all right and title in this Application.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 1, 2, 4-15, 18, 19, 21-25, 27-30, 32-50 are presently pending in the application. Claims 1, 2, 4-10, 13-15, 18, 19, 21-25, 27-30, 32-50 have been rejected and are being appealed. Claims 11 and 12 are objected to, but would be allowable if rewritten in independent form. Claims 3, 16, 17, 20, 26 and 31 are canceled.

STATUS OF AMENDMENTS

There are no unentered amendments after final.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention relates generally to computer systems and more particularly to a computer system for creating and providing a map image of real estate values.

Currently, data indicating sale prices of homes or other real estate is available from several on line sources. This data is typically displayed in text format, wherein each entry displays the address, sales price, sales date, etc. Although these databases provide information to potential home buyers regarding sale prices in selected areas, the textual display of such information is inefficient. Further, the textual display does not provide the observer with an indication of how sale prices vary generally across geographic areas.

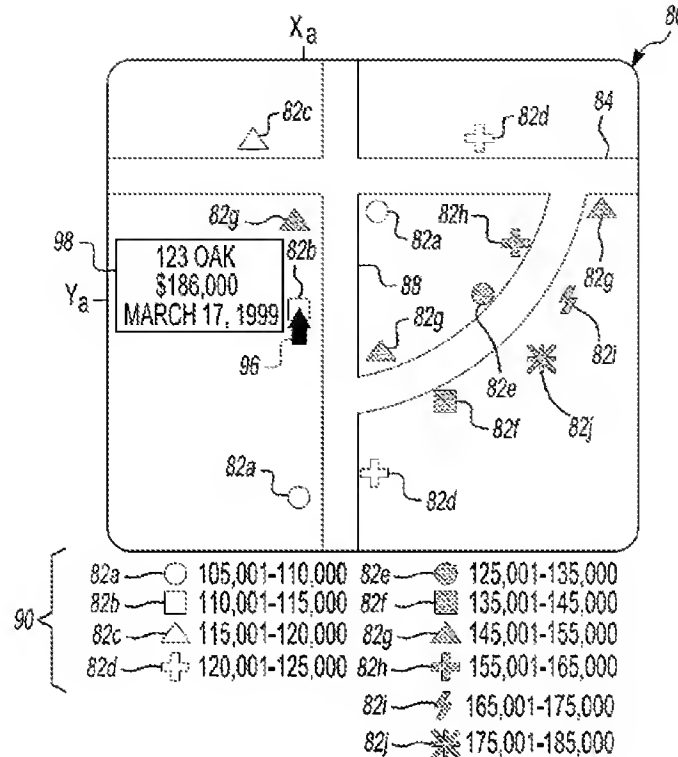
The present invention provides a method and computer system for creating and displaying a map image including symbols which quickly and efficiently convey information

regarding real estate values in numerous geographic locations in a selected geographic area simultaneously. (Page 1, lines 17-20).

Preferably, the computer system of the present invention includes a database including a sale price for each of a plurality of real estate parcels in selected geographic areas. The computer system further includes a map program which associates each of the plurality of real estate parcels to a map image location. The computer system associates each of a plurality of symbols with a range of sales prices. Preferably each symbol includes a first visual indicator (such as a color) and a second visual indicator (such as the shape of the symbol). Each first visual indicator (e.g. color) is associated with a different range of sales prices. Each range is further divided in to subranges, with each second visual indicator (e.g. shape) within each color associated with one of the sub ranges. Thus, for example, the color of a symbol indicates the range of sales prices, while the shape further defines the sub-range of sales prices. (Page 1, line 21 to Page 2, line 2).

The computer associates one of the plurality of symbols with each of the real estate parcels based upon the sales price from the value database. Each symbol is then displayed on a map image based upon the association between the real estate parcel and the map image location. (Page 2, lines 3-6).

The resulting map image of the geographic area includes the plurality of symbols displayed on the map image at locations corresponding to the real estate parcels. Each symbol indicates the sale price (within the sub range) of the real estate parcel with which it is associated. (Page 2, lines 7-10). Figure 2, reproduced below, illustrates an example of one possible map image:

**Fig-2**

An observer can quickly perceive larger variations in real estate values by observing differences in the first visual indicators (e.g. color) between different geographic locations. By looking further in a particular area, the observer can discriminate smaller variations in real estate values indicated by the second visual indicators (e.g. different shapes) of the symbols. (Page 2, lines 11-15).

Preferably, the computer system is implemented on a network, such as the Internet. The computer system provides a user with the ability to select a geographic area. Upon selection of the geographic area, the computer system displays a map image with the symbols as described above for that area. An advertisement associated with the selected geographic area may also be

displayed either alongside of the map image or in a display screen prior to the map image. The advertisement would ideally be for a realtor or mortgage broker or other service or product related to the purchase and sale of homes or other real estate. (Page 2, lines 15-22).

Claim 1

Claim 1 recites a method of displaying on a computer 72, 74 information regarding values associated with a plurality of geographic locations 58 including receiving a request for information regarding a first geographic area including the plurality of geographic locations 58, wherein the plurality of geographic locations 58 are street addresses. (Figure 1; Page 3, line 22 to Page 4, line 2). A plurality of values 60 each associated with one of the plurality of geographic locations 58 are then received, wherein the plurality of values 60 are price values. (Page 4, lines 2-3). Each of a plurality of symbols 82 is associated with each of the plurality of geographic locations 58 based upon the associated value 60 of each of the plurality of geographic locations 58. (Figure 1; Page 4, lines 22-25). A map 80 of the first geographic area is displayed on a display 74 in response to receiving the request. Each of the plurality of symbols 82 is displayed on the display on the map at its associated geographic location in response to receiving the request. (Page 7, lines 10-13; Figure 2).

Claim 19

Claim 19 recites a computer system for displaying information regarding values 60 associated with a plurality of locations including an input device for selectively generating a request for information regarding a geographic area. (Figure 1; Page 3, lines 15-16; Page 7, lines 19-21). A database stores a plurality of values 60 each associated with one of the plurality of locations in the

geographic area. (Page 4, lines 2-3). Each of a plurality of symbols 82 is associated with each of the plurality of locations based upon the values 60. (Figure 1; Page 4, lines 22-25). The plurality of values 60 are price values and the plurality of locations are street addresses. A display displays a map of the first geographic area and each of the plurality of values 60 at the associated locations on the map in response to the request from the input device.

Claim 25

Claim 25 recites a computer system 22 for creating a map 80 including a map program associating each of a plurality of geographic locations 58 in a geographic area with a map location, wherein the geographic locations 58 are street addresses. A value database stores a plurality of values 60 each associated with one of the plurality of geographic locations 58, wherein the plurality of values 60 are price values. (Page 4, lines 2-3). A plurality of symbols 82 are each associated with at least one of the plurality of values 60, wherein each of the plurality of symbols 82 has a first visually identifying characteristic indicating one of a plurality of ranges of the values 60 and a second visually identifying characteristic indicating a subrange within its associated range. (Figure 1; Page 4, lines 22-25). A computer 22 is programmed to associate each of the plurality of symbols 82 with each of the plurality of map locations in the map program based upon the associated value in the value database for the associated geographic location. A display 74 displays a map image 80 of the geographic area and each of the plurality of symbols 82 at the associated map locations.

Claim 28

Claim 28 recites a method for creating a map image 80 in a computer including the step of receiving a plurality of values 60 each associated with one of a plurality of geographic locations 58 in

a geographic area, wherein the plurality of values 60 are price values and the plurality of geographic locations 58 are street addresses. (Page 6, lines 22-25). Each of a plurality of symbols 82 are associated with at least one of the plurality of values 60, wherein each of the plurality of symbols 82 has a first visually identifying characteristic indicating one of a plurality of ranges of the values 60 and a second visually identifying characteristic indicating a subrange within its associated range. (page 6, lines 11-13). Each of the plurality of geographic locations 58 is associated with a map location on a street map image. Each of the plurality of symbols 82 is associated with each of the plurality of map locations based upon the associated values 60. The map image 80 of the geographic area is generated including the plurality of symbols 82 each at their associated map locations. (Page 6, lines 22-25).

Claim 41

Claim 41 recites a method of displaying on a computer 72, 74 information regarding values 60 associated with a plurality of geographic locations 58. Each of a plurality of symbols 82 is associated with one of a plurality of geographic locations 58 based upon associated values 60 of the geographic locations 58, each of the plurality of symbols 82 having first visually identifying characteristic indicating one of a plurality of ranges of the values 60 and a second visually identifying characteristic indicating a subrange within its associated range, the value of each geographic location corresponding to the range and subrange indicated by the symbol associated with the each geographic location. (Page 6, lines 22-25). A request is received for information regarding a first geographic area including the plurality of geographic locations 58. A map of the first geographic area is displayed in response to receiving the request. Page 7, lines

19-22). Each of the plurality of symbols 82 is displayed on the map at its associated geographic location in response to receiving the request. (Pages 7, lines 11-13).

Claim 45

Claim 45 recites a method for creating a map image in a computer including the step of receiving a plurality of values 60 each associated with one of a plurality of geographic locations 58 in a geographic area. (Page 6, lines 19 to Page 7, line 1). Each of a plurality of symbols 82 is associated with one of the plurality of geographic locations 58 based upon the value associated with the geographic location. (Page 7, lines 10-13; Figure 2) Each of the plurality of geographic locations 58 is associated with a map location on a street map image. Each of the plurality of symbols 82 is associated with each of the plurality of map locations based upon the associated values 60. (Pages 7, lines 11-13). The map image of the geographic area is generated, including the plurality of symbols 82 each at their associated map location, each of the plurality of symbols 82 having first visually identifying characteristic indicating one of a plurality of ranges of the values 60 and a second visually identifying characteristic indicating a subrange within its associated range, the value of each geographic location corresponding to the range and subrange indicated by the symbol associated with the geographic location.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Appellant seeks review of the following grounds of rejection:

I. Claims 1-2, 4-7, 13-15, 19, 21-23 and 35-38 are rejected under 35 USC §103 as being unpatentable over Brown (U.S. Patent 5,794,216) in view Manson et al (U.S. Patent 5,731,997) further in view of Jones (U.S. Patent 6,748,318).

II. Claim 18 is rejected as obvious over Brown, Manson, Jones and DeLorme (US 5,559,707).

III. Claims 8-10, 24-25, 27-30, 32-34, and 39-40 are rejected under 35 USC §103 as being unpatentable over Brown in view of Manson et al further in view of Jones, and further in view of Tachibana et al (U.S. Patent 6,219,053).

IV. Claims 41-50 are rejected as being obvious over Brown, Manson, Tachibana (US 6,219,053).

ARGUMENTS

I. Claims 1, 2, 4-7, 13-15, 19, 21-23, 25, 35-38 are rejected under 35 USC §103 as being unpatentable over Brown (U.S. Patent 5,794,216) in view Manson et al (U.S. Patent 5,731,997) further in view of Jones (U.S. Patent 6,748,318).

Independent claims 1 and 19

Independent claims 1 and 19 recite, displaying a plurality of symbols on a map *in response to said request* for information regarding the geographic area, wherein the plurality of

geographic locations are street addresses and the plurality of values are price values.

Brown teaches a database of houses, storing pictures and information about a plurality of houses for sale, and a viewer program that allows a user to query the database and view the results. (col. 7, lines 29-34). First, the user chooses a geographic subregion by clicking on one of the subregions in the displayed map of a region 204 (Figure 13, reproduced below):

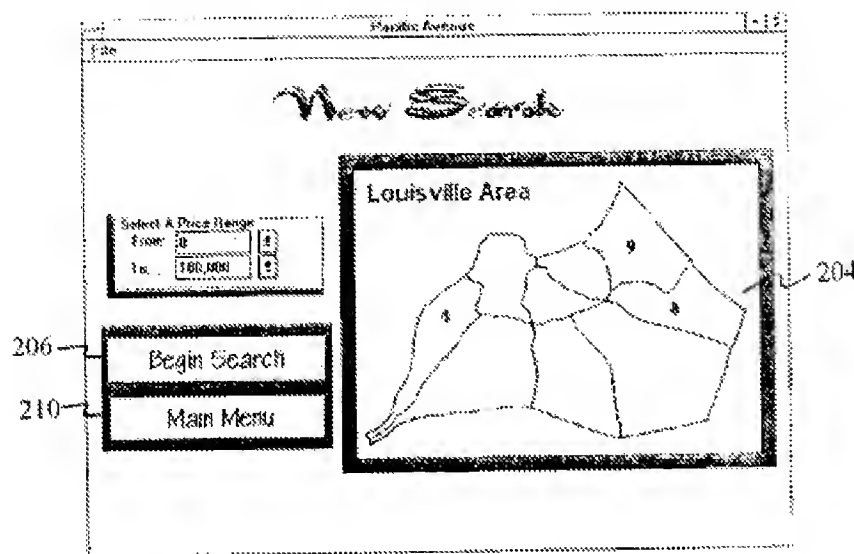


FIG. 13

At the same time, the user can choose a price range of houses to be searched (See Figure 13, above). After the user clicks on the “Begin Search” button 206, the records stored in the database are searched to find the houses that are within the selected subregions and having the desired price range. (col. 7, lines 2-65). The results of the database search are displayed in a list 212 as shown in Figure 14, reproduced below:

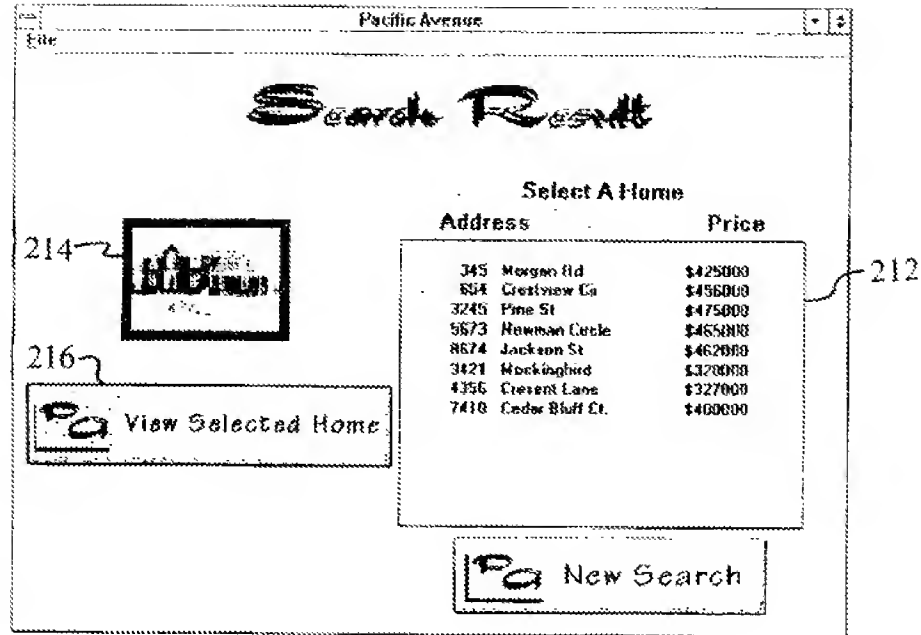


FIG. 14

A thumbnail image 214 of a selected one of the homes in the list 212 maybe be displayed next to the list. Upon selecting the “View Selected Home” button 216, an exterior image of the selected house is displayed (Figure 15).

Thus, Brown teaches displaying the map only *to facilitate requesting information* regarding a geographic area, not in response to requesting information, as claimed. Contrary to the Examiner’s argument, Brown does not teach “displaying a map of the first geographic area in response to said request for information (region 204).” (Final Rejection mailed August 28, 2006, page 2). The user interface in Figure 13 of Brown shows a map with several regions so that the user can indicate the geographic area where the user would like to purchase a house. (col. 7, lines

50-56). Based upon the selected geographic area, Brown *displays a list* 212 of homes for sale in the screen shown in Figure 14 (col. 7, line 48 to col. 8, line 5). Brown does not teach displaying a map of a geographic area showing the geographic locations, or associating symbols with those locations. Brown starts with a map to facilitate user input, but Brown's output is a list of homes from which the user can request more specific information (by clicking on the home in the list).

Thus, generally speaking, Brown has the opposite purpose of the present invention. Brown's interface seeks to move the user quickly from a broad request (geographic area and price) into detailed information about specifically selected homes. On the other hand, the present invention receives a broad request from the user (for a geographic area) and provides very general information about many houses simultaneously so that a user can determine trends relating to geographic location (e.g. which are the more expensive areas? what are the general geographic price trends of the entire geographic area? what is the general pricing of an area? generally how large is the variation in pricing of the geographic area?). As recited in claims 1 and 19, symbols are associated with the geographic locations (e.g. home locations) based upon the values of the geographic locations. These symbols are displayed on the map to convey general information about the area, not specific information about the specific homes.

There is no motivation to add a map (such as from Manson) to the output of Brown, because Brown already displays the geographic locations on a list and allows the user to retrieve detailed information about selected homes on the list. This purpose would not be furthered and by adding a map output with symbols.

Further, Manson teaches a GPS unit that displays symbols shown at geographic locations in order to identify what is at that geographic location; e.g. a tree symbol is shown at a geographic location of a tree, while a telephone pole symbol is shown at a geographic location of a telephone pole. Manson's map would display all of the houses of Brown as houses. There is no teaching or suggestion to associate symbols based upon value.

Claims 1 and 19 are therefore patentable.

Claims 6, 7 and 23

The Examiner argues that Manson teaches that the plurality of symbols each have a different shape and color. First, Manson teaches that, "It is useful to display features the same icons and colors." In other words, for example, trees will always be green, ponds will always be blue, etc. Therefore, even if there were some motivation to do so, if this were applied to the Brown software, the houses would all be the same color and the same shape (icon).

Claim 14

The Examiner argues that Brown discloses displaying an ad. However, at the least, Brown does not display an ad based upon receiving a request for information regarding a geographic area, as required by claim 14. Even if the logos shown in Figures 12-14 were considered ads, Brown displays the same ones no matter what geographic request is made, not "based upon" the geographic request.

II. Claim 18 is rejected as obvious over Brown, Manson, Jones and DeLorme (US 5,559,707). Claim 18 depends from claim 1 and further recites, “associating each of the plurality of values with a latitude and longitude and displaying each of the symbols on the map based upon the associated longitude and latitude.” Again, the purpose of Brown is to take the user’s broad geographic request and display detailed information about each home, one home at a time, to the user. There is no need (and no reason) to associate the homes in Brown with latitude and longitude, as claimed.

III. Claims 8-10, 24-25, 27-30, 32-34, and 39-40 are rejected under 35 USC §103 as being unpatentable over Brown in view of Manson et al further in view of Jones, and further in view of Tachibana et al (U.S. Patent 6,219,053).

Claims 8, 25, 28 recite, “each of the plurality of symbols having first visually identifying characteristic indicating one of a plurality of ranges of the values and a second visually identifying characteristic indicating a subrange within its associated range.”

Just for purposes of illustration, in one example described in the specification, the first visually identifying characteristic is color, while the second visually identifying characteristic is shape. In this manner, it is easier to see trends in pricing across a geographic area based upon the color, while also being able to discern smaller trends within an area of the same color, but different shapes. Again, this has nothing to do with what Brown is trying to accomplish. Since the prices of the homes are already displayed on the list (and the user may have already entered a price range), Brown’s only remaining goal is to quickly get the user into detailed information about a specific listing, such as interior and exterior photos, etc. Brown has no mention of

“ranges” and “subranges” and has no need of ranges and subranges.

Further, as the Examiner acknowledges, Manson does not disclose “ranges” and “subranges.” Manson discloses trees, telephone poles and ponds and the like. There are no “ranges” and “subranges.”

The Examiner argues that Tachinaba discloses ranges and subranges. Tachibana discloses a map of nodes on a network, i.e. a host, a router, a hub, etc. Figure 22 (to which the Examiner refers) is reproduced below:

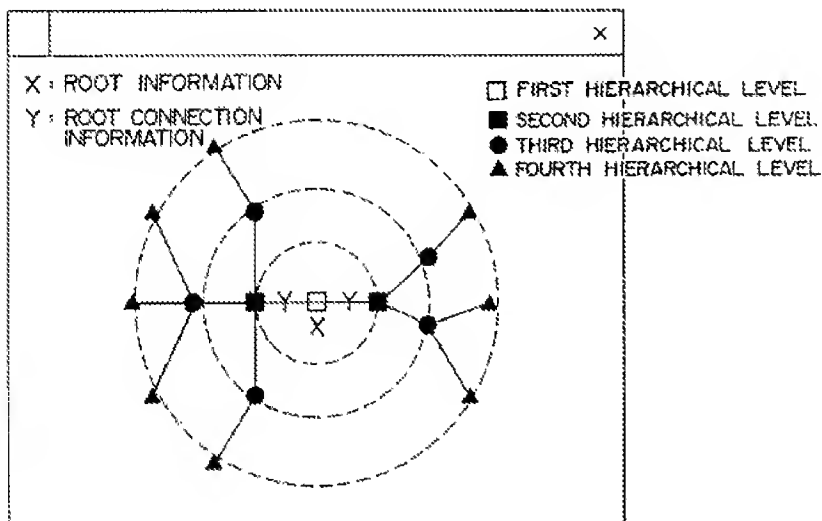


FIG. 22

These elements have hierarchy, but no values, no ranges of values and no subranges of values. Tachibana does not disclose associating different *ranges of values* with different symbols. The symbols in Tachibana are each associated with different hierarchical levels, there are no *ranges* or *subranges* of values associated with routers or hubs or hosts.

Additionally, there is no teaching in Tachinaba of any correlation between shape (or color) and any range or subrange. Tachinaba is simply providing four distinguishable symbols by using three shapes and two colors, but there is no relationship (particularly in the nature of range/subrange) indicated by two symbols with the same shape, but different color, or vice versa.

Therefore, even if all of these references were somehow combined, the claimed invention would not be achieved.

Claim 10

Additionally, claim 10 recites that the magnitude of the ranges varies among the plurality of symbols. This concept makes it even clearer that Tachinaba does not disclose any values, ranges of values, subranges of values, or any symbolic association to ranges and subranges. There is clearly no “magnitude of ranges” in Tachinaba because the symbols in Tachinaba each represent a different hierarchy, and the device represented by the symbol is either in a hierarchical level or it is not. There is no “range of values” which qualifies it for a hierarchical level. Nor would it make any sense to try to vary a “magnitude of the ranges.”

Claims 24 and 27

The Examiner argues that Tachinaba teaches associating different symbols with ranges of values. Again, in Tachinaba, there are no “ranges of values.” There are only discrete hierarchical levels.

IV. Claims 41-50 are rejected as being obvious over Brown, Manson, Tachibana (US 6,219,053).

Claim 41 recites, “each of the plurality of symbols having first visually identifying characteristic indicating one of a plurality of ranges of the values and a second visually identifying characteristic indicating a subrange within its associated range, the value of each geographic location corresponding to the range and subrange indicated by the symbol associated with the each geographic location.”

Claim 45 recites, “each of the plurality of symbols having first visually identifying characteristic indicating one of a plurality of ranges of the values and a second visually identifying characteristic indicating a subrange within its associated range, the value of each geographic location corresponding to the range and subrange indicated by the symbol associated with the geographic location.”

For the same reasons that Brown, Manson, Jones and Tachibana did not render other claims obvious, as argued in Section III, above, claims 41 and 45 are not obvious over Brown, Manson and Tachinaba. Rather than repeat those arguments, that Section is incorporated by reference here.

CLOSING

For the reasons set forth above, the final rejection of the claims should be reversed. If any fees or extensions are ever required, please charge Deposit Account 50-1482.

Respectfully submitted,

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Dated: August 28, 2007

CLAIMS APPENDIX

1. A method of displaying on a computer information regarding values associated with a plurality of geographic locations including the steps of:

a) receiving a request for information regarding a first geographic area including the plurality of geographic locations, wherein the plurality of geographic locations are street addresses;

b) receiving a plurality of values each associated with one of the plurality of geographic locations, wherein said plurality of values are price values;

c) associating each of a plurality of symbols with each of the plurality of geographic locations based upon the associated value of said each of the plurality of geographic locations;

d) displaying a map of the first geographic area in response to said step a) on a display; and

e) displaying each of the plurality of symbols on the map at its associated geographic location in response to said step a) on the display.

2. The method of Claim 1 wherein said steps b) and c) are performed prior to said step a).

3. (Cancelled)

4. The method of Claim 1 wherein the values are rental values.

5. The method of Claim 1 further including the steps of:

prior to said step a), displaying a list of a plurality of geographic areas, including the first geographic area.

6. The method of Claim 1 wherein the plurality of symbols each include a different shape.

7. The method of Claim 6 wherein the plurality of symbols each include a different color.

8. The method of Claim 1 further including the steps of:

f) associating each of the plurality of symbols with a different range of values wherein each of the plurality of symbols has first visually identifying characteristic indicating one of a plurality of ranges of the values and a second visually identifying characteristic indicating a subrange within its associated range; and

g) associating each of the plurality of symbols based upon said steps c) and f) wherein the value of each geographic location corresponds to the range and subrange indicated by the symbol associated with the geographic location.

9. The method of Claim 8 wherein each of the symbols has an associated color and an associated shape.

10. The method of Claim 9 wherein a magnitude of the ranges vary among the plurality of symbols.

11. The method of Claim 1 further including the steps of:

f) associating each of a plurality of colors with one of a plurality of ranges of the values;

g) associating each of a plurality of shapes with one of a plurality of subranges within each of the plurality of ranges of the values, each symbol including one of the plurality of colors and one of the plurality of shapes, wherein a magnitude of the plurality of subranges varies among the symbols;

h) associating each of the plurality of symbols based upon said steps c), f) and g).

12. The method of claim 11 wherein the subranges for symbols associated with a higher-value color are larger in magnitude than symbols associated with a lower-value color.

13. The method of Claim 1 further including the step of:

displaying a legend indicating the values associated with each of the plurality of symbols.

14. The method of Claim 1 further including the step of:
displaying an advertisement based upon said step a).

15. The method of Claim 1 further including the steps of:
f) receiving a request for additional information for a selected one of the plurality of geographic locations;
g) displaying the additional information based upon said step f).

16. (Cancelled)

17. (Cancelled)

18. The method of Claim 1 further including the steps of associating each of the plurality of values with a latitude and longitude and displaying each of the symbols on the map based upon the associated longitude and latitude.

19. A computer system for displaying information regarding values associated with a plurality of locations comprising:
a) an input device for selectively generating a request for information regarding a geographic area;

b) a database of a plurality of values each associated with one of the plurality of locations in the geographic area, each of a plurality of symbols associated with each of the plurality of locations based upon the values, wherein said plurality of values are price values and said plurality of locations are street addresses; and

c) a display displaying a map of the first geographic area and each of the plurality of values at the associated locations on the map in response to said request from said input device.

20. (Cancelled)

21. The computer system of Claim 19 wherein the values are rental values.

22. The computer system of Claim 19 wherein the display displays a list of a plurality of geographic areas, including the first geographic area, the input device selecting the first geographic area from the list.

23. The computer system of Claim 19 wherein the plurality of symbols each include a different shape and a different color.

24. The computer system of Claim 19 wherein each of a plurality of colors is associated with one of a plurality of ranges of the values, and each symbol includes a different one of the plurality of colors, each of the plurality of symbols associated with the plurality of locations based upon the associated colors and values.

25. A computer system for creating a map comprising:

a map program associating each of a plurality of geographic locations in a geographic area with a map location, wherein said geographic locations are street addresses;

a value database of a plurality of values each associated with one of the plurality of geographic locations, wherein said plurality of values are price values;

a plurality of symbols, each associated with at least one of the plurality of values wherein each of the plurality of symbols has a first visually identifying characteristic indicating one of a plurality of ranges of the values and a second visually identifying characteristic indicating a subrange within its associated range;

a computer programmed to associate each of the plurality of symbols with each of the plurality of map locations in the map program based upon the associated value in the value database for the associated geographic location; and

a display displaying a map image of the geographic area and each of the plurality of symbols at the associated map locations.

26. (Cancelled)

27. The computer system of Claim 25 wherein each of a plurality of colors is associated with one of a plurality of ranges of the values, and each symbol includes a different one of the plurality of colors, each of the plurality of symbols associated with the plurality of locations based upon the associated colors and values.

28. A method for creating a map image in a computer including the steps of:

a) receiving a plurality of values each associated with one of a plurality of geographic locations in a geographic area, wherein said plurality of values are price values and said plurality of geographic locations are street addresses;

b) associating each of a plurality of symbols with at least one of the plurality of values wherein each of the plurality of symbols has a first visually identifying characteristic indicating one of a plurality of ranges of the values and a second visually identifying characteristic indicating a subrange within its associated range;

c) associating each of the plurality of geographic locations with a map location on a street map image;

d) associating each of the plurality of symbols with each of the plurality of map locations based upon the associated values;

e) generating the map image of the geographic area including the plurality of symbols each at their associated map locations.

29. The method of Claim 28 further including the steps of:
- f) receiving a request for information regarding the geographic area;
 - g) displaying a map of the first geographic area in response to said step a); and
 - h) displaying each of the plurality of symbols on the map at its associated location in response to said step a).
30. The method of Claim 28 wherein said steps c) and d) are performed after said steps a) and b).
31. (Cancelled)
32. The method of Claim 28 further including the steps of:
- f) associating each of a plurality of shapes with one of a plurality of ranges of the values, each symbol including a different one of the plurality of shapes;
 - g) associating each of the plurality of symbols based upon said step f).
33. The method of Claim 32 further including the step of:
- displaying a legend indicating the values associated with each of the plurality of symbols.
34. The method of Claim 28 wherein each of the plurality of values is associated with a street address.

35. The method of claim 1 wherein each of the plurality of symbols is different in appearance.

36. The method of claim 35 wherein said step c) further includes the step of assigning each of the plurality of symbols to more than one of the plurality of geographic locations based upon the associated values.

37. The computer system of claim 19 wherein each of the plurality of symbols is different in appearance.

38. The computer system of claim 37 wherein said each of the plurality of symbols is associated with more than one of the plurality of locations based upon the associated values.

39. The computer system of claim 25 wherein each of the plurality of symbols is different in appearance.

40. The computer system of claim 39 wherein said each of the plurality of symbols is associated with more than one of the plurality of locations based upon the associated values.

41. A method of displaying on a computer information regarding values associated with a plurality of geographic locations including the steps of:

- a) associating each of a plurality of symbols with one of a plurality of geographic locations based upon associated values of the geographic locations, each of the plurality of symbols having first visually identifying characteristic indicating one of a plurality of ranges of the values and a second visually identifying characteristic indicating a subrange within its associated range, the value of each geographic location corresponding to the range and subrange indicated by the symbol associated with the each geographic location;
- b) receiving a request for information regarding a first geographic area including the plurality of geographic locations;
- c) displaying a map of the first geographic area in response to said step b);
- d) displaying each of the plurality of symbols on the map at its associated geographic location in response to said step b).

42. The method of Claim 41 wherein one of the first visually identifying characteristic and the second visually identifying characteristic is shape.

43. The method of Claim 42 wherein the other of the first visually identifying characteristic and the second visually identifying characteristic is color.

44. The method of Claim 41 wherein at least one of the first visually identifying characteristic and the second visually identifying characteristic is color.

45. A method for creating a map image in a computer including the steps of:

a) receiving a plurality of values each associated with one of a plurality of geographic locations in a geographic area;

b) associating each of a plurality of symbols with one of the plurality of geographic locations based upon the value associated with the geographic location;

c) associating each of the plurality of geographic locations with a map location on a street map image;

d) associating each of the plurality of symbols with each of the plurality of map locations based upon the associated values; and

e) generating the map image of the geographic area including the plurality of symbols each at their associated map location, each of the plurality of symbols having first visually identifying characteristic indicating one of a plurality of ranges of the values and a second visually identifying characteristic indicating a subrange within its associated range, the value of each geographic location corresponding to the range and subrange indicated by the symbol associated with the geographic location.

46. The method of Claim 45 wherein at least one of the first visually identifying characteristic and the second visually identifying characteristic is shape.

47. The method of Claim 46 wherein at least one of the first visually identifying characteristic and the second visually identifying characteristic is color.

48. The method of Claim 45 wherein at least one of the first visually identifying characteristic and the second visually identifying characteristic is color.

49. The method of claim 41, wherein a magnitude of the subranges varies among the symbols.

50. The method of claim 45, wherein a magnitude of the subranges varies among the symbols.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.